

**LAWRENCE LIVERMORE NATIONAL LABORATORY**  
**(LLNL) INSTITUTIONAL**  
**INTEGRATED SAFETY MANAGEMENT SYSTEM (ISMS)**  
**PHASE IB/IIB VERIFICATION REVIEW PLAN FOR**  
**PART I AND PART II**

**April 2000**



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## 1.0 INTRODUCTION

Department of Energy (DOE) Policy (P) 450.4, *Safety Management System Policy*, defines the expectation that DOE facilities will be operated in accordance with an Integrated Safety Management System (ISMS). The DOE Acquisition Regulations (DEAR, 48 Code of Federal Regulations [CFR] 970) further require that the Head Contracting Authority (HCA), in this case the Manager, Oakland Operations Office, provide guidance to the University of California (UC) as to the expectations for the ISMS Description. The HCA guidance and expectations for the Lawrence Livermore National Laboratory (LLNL) to develop and implement an ISMS were provided by letter (Promani to Kuckuck, dated November 25, 1997) and updated (Promani to Fisher, August 18, 1998, and Hooper to Kuckuck, December 18, 1998).

This Phase IB/IIB review will be conducted in support of the HCA's expectations and to meet the requirements of the DEAR and DOE P 450.4 in accordance with DOE Guide (G) 450.4-1A, *ISMS Guide*, and the *ISMS Verification Team Leader's Handbook* (DOE-HDBK-3027-99). The HCA appointed James Winter as the Team Leader for the Phase IB/IIB ISMS verification in a memorandum dated March 28, 2000, (reference Appendix 11.2). This Review Plan (RP) will define the review and procedures that will be followed to conduct the review.

As described in the ISMS Guide, this ISMS verification is divided into two phases. However, the definition for this verification deviates slightly from a conventional Phase I/II verification defined in the *ISMS Verification Team Leader's Handbook*. Phase IA was accomplished in December, 1999 and verified the Institutional ISMS Description and line management's understanding of the ISM system at the Associate Director level and above. For this verification, Phase IB will verify the adequacy of directorate level and below procedures, policies and programs defined by the Directorate Implementation Plans, their consistency with the ISMS Description, and line management's understanding of the ISM System. Phase IB is included in this review because the Laboratory had determined that they were not ready to have the directorate to facility portion verified as of late September 1999. The verification team will review the new versions of the Directorate Implementation Plans and the ISMS Description since the Phase IA verification to address the delta improvements and responsiveness from previous ISMS verifications.

Likewise, Phase IIA (completed in December, 1999) verified the implementation aspects of the ISMS Description at the Associate Director level and above. Phase IIB will verify implementation of the ISMS at selected directorates through the activity level in accordance with Directorate Implementation Plans and ensuring consistency with the ISMS Description.

## 2.0 PURPOSE

The ISMS verification will determine whether ISMS is in place and implemented at the directorate, facility, and activity levels. A specific recommendation will be made within the final report to the HCA regarding the acceptability of implementation per the described ISMS. Specific areas, if any, will be addressed in which the system is not adequately described or implementation is not adequate or consistent with the approved ISMS Description. Likewise, noteworthy practices will also be specified. The verification of the LLNL ISMS implementation will utilize the Sitewide Phase IA/IIA verification, Superblock Phase I/II verification, associated gap analyses, other site-wide reviews, and associated corrective actions, as appropriate.

The final report will discuss the maturity and effectiveness of implementation in selected directorates, facilities, and activities. The final report will also discuss the adequacy of the Directorate Implementation Plans and the referenced procedures, policies and manual of practice (mechanisms) in fulfilling ISMS requirements within these sampled directorates.

## 3.0 SCOPE

The ISMS Verification Phase IB will verify that the ISMS Description extends through the directorate and facility level procedures, policies and programs as defined by the Directorate Implementation Plans and associated gap analyses. Institutional policies, procedures, and programs added or upgraded to the ES&H Manual since the Phase 1A verification will be reviewed, including their rollout and use.

The ISMS Verification Phase IIB will verify that the described ISMS is implemented, flows down, and integrated across the individual directorate, facility and activity levels. The mechanisms and their implementation to identify, evaluate, control and assess individual work items will be assessed as key indicators of the adequacy of the implementation.

The Phase IB/IIB Verification Team will conduct detailed reviews of up to six directorates, 8-10 facilities, and crosscutting reviews of the Laboratory in several areas of subject matter expertise. Implementation of ISM (Phase II) will be the greater area of emphasis. The Phase IB/IIB Verification will be conducted in two distinct parts (Part I and Part II) to provide appropriate coverage for the site and a manageable scope for each part. Each Part will have a separate final report prepared, however, the Part II final report will integrate the results for all of Phase B by rolling up the results from the Part I final report. The details of each report will reside only in each respective final report.

The DOE, both Oakland Operations Office and Headquarters, will be reviewed for implementation of ISMS consistent with the DOE FRAM, Headquarters' FRA(s), and OAK FRA at LLNL. DOE processes and procedures will be evaluated against DOE P 450.5, Line Environment, Safety Health Oversight, and DOE P 411.1, *Safety Management Function, Responsibilities and Authorities Policy*. The implementation of

commitments related to DNFSB Recommendation 98-1 will also be evaluated.

The review will assess the site-wide implementation of the LLNL Institutional ISMS Description and associated processes, their integration, and their completeness in addressing DOE P 450.4, the DEAR and HCA direction. The review will also include the interfaces between DOE (Oakland and Headquarters) and LLNL. The review will focus on directorate, facility, and activity levels and the execution of associated processes directed by the Directorate Implementation Plans, and their consistency with the LLNL ISM System Description. The review will extend through line management personnel within the activities being reviewed and all associated personnel who manage or execute areas of subject matter expertise included within this Review Plan.

#### 4.0 PREREQUISITES

Expectations for the LLNL Institutional Phase IB/IIB verification include the following conditions are met prior to the verification commencing:

- Directorate Implementation Plans are up to date and approved by the responsible Associate Directorate;
- Directorate and Sitewide gap analyses are updated with corrective actions since the LLNL Sitewide Phase IA/IIA Verification;
- A declaration has been made by LLNL that the LLNL policies in accordance with the Institutional ISMS Description have been established and ISMS is implemented for all directorates. If necessary, shortcomings have been identified, a corrective action plan and compensatory measures are in place;
- The Review Team Leader is appointed, the team members are selected by the Team Leader and approved by the HCA. The Review Plan is developed by the team and approved by the Team Leader and the HCA; and
- Team members' understanding of Integrated Safety Management, the Institutional System Description and the verification approach stated in the Review Plan are confirmed in pre-visit training.

#### 5.0 OVERALL APPROACH

The ISMS Verification Phase IB/IIB Team will review the ISMS implementation in the selected directorates and subject matter expert areas. The Verification Team will evaluate the progress and effectiveness of the implementation efforts against the guiding principles and core functions defined in DOE P 450.4. Based on this assessment, the ISMS Verification Phase II Team will draw conclusions and make recommendations to the HCA as to whether the ISMS implementation is achieving the overall objective of Integrated Safety Management defined in policy as follows"

"The Department and contractors must systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment. This is to be accomplished through effective integration of safety management into all facets of

work planning and execution. In other words, the overall management of safety functions and activities becomes an integral part of mission accomplishment."

## 5.1 Sequence of Activities for Pre-visit

Preparation for the ISMS Verification, including Criteria and Review Approach Documents (CRAD) final development and review, and required reading by the Verification Team was conducted during the pre-visit and off-site prior to the ISMS verification. The Team Leader coordinated with LLNL Managers on the expectations of the ISMS verification. The pre-visit concluded a series of preparatory actions for the Verification Team, LLNL and DOE-OAK. Following approval of this Review Plan, the ISMS verification will be conducted in two parts.

The team pre-visit for training accomplished the following:

- Security badging and access for team members to ensure successful accomplishment of the verification occurred;
- Completion of qualification records and biographies for team members;
- Introduction to DOE ISM Policy expectations;
- Overview and implementation of the ISMS Description at the Directorate level and below presented by LLNL;
- Overview and implementation of the DOE oversight and interface with LLNL presented by DOE-OAK;
- Finalization of the Phase IB/IIB CRADs (including approaches, interviews, documents to be reviewed and observations) by team members with LLNL and DOE counterparts; and
- Finalization of the Review Plan for approval by HCA.

In addition to the activities described above, the team received management briefings from LLNL and DOE on the Site's implementation of ISMS per the functions, responsibilities, and mechanisms in the Institutional ISMS, the Directorate Implementation Plans, and the DOE-OAK FRAs. These briefings were an important part of the verification process since they provided the responsible managers and supervisors with an opportunity to present their implementation of the mechanisms (particularly at the facility and activity level) and defend the integration of safety management at their levels of responsibility.

During the pre-visit while completing the CRADs, a request list of documents, interviews and observations was generated and given to the site to fulfill. These requests need to be addressed by the site (DOE and LLNL) prior to commencement of the verification.

## 5.2 Sequence of Activities for Verification

The second major activity is the verification in which the team will conduct the actual field work, and verify implementation of the described ISM System Description for the Site and the appropriate DOE interfaces. The verification will be split into two manageable parts (Part I and Part II) and accomplished by this Review Plan. CRADs may be

tailored/changed for Part II to best address selected directorates/facilities. Management briefings, document reviews, management interviews and observations of ISM activities will be utilized in the verification process to draw conclusions and prepare a final report.

During the verification, team members will complete their evaluation of the criteria for each CRAD with objective evidence to support conclusions as to whether or not each CRAD objective has been met. Evaluation of the criteria results from presentations made during the pre-visit, team member understanding of the ISMS, coupled with the field verification that the described ISM System is implemented from the directorate level through the activity level.

A final report will be prepared to describe the results and findings of each part (Part I and Part II) of the ISMS verification. The Part II final report will contain an integrated rollup of Part I and Part II in Volume I. These reports will provide a recommendation to the HCA concerning implementation of ISMS, and to delineate areas, if any, in which implementation does not conform to the approved ISMS Description. The Final Report will be complete on the final day of each scheduled verification (Part I and Part II).

Additional details on the review may be found in Section 7.0. The contents of the final report are described in more detail in Section 9.0.

## 6.0 PREPARATIONS

### 6.1 ISMS Verification Team Preparations

The team has prepared for the ISMS Verification with required reading of the documents that form basis for ISM, the ISMS Verification Review Plan, the LLNL ISMS Description, Volume I of the Sitewide Phase IA/IIA and Superblock Phase I/II verifications, and relevant Directorate Implementation Plans. A presentation and discussion on the RP included a discussion of the strategy and logic by which the CRAD and functional areas were developed. The ISMS Executive Course was provided along with training on the mechanisms of the verification, such as interview techniques and preparation of the final report.

LLNL managers briefed the Verification Team to explain their implementation of ISMS. The team then established a basis for interviews, observations, and further document reviews in order that LLNL's implementation of ISMS can be evaluated consistent with their documented ISMS. The DOE briefings on the ISMS included discussions of DOE implementation of safety management, consistent with the DOE-OAK and DP-HQ FRA documents (and their referenced requirements). While these briefings and discussions were part of the training and indoctrination of the team during the pre-visit, they also formed an important first step in the verification process.

### 6.2 LLNL and DOE-OAK Preparations

There are several areas, in addition to those listed in Section 4, PREREQUISITES, that are essential for completion of a successful verification. Those were demonstrated as follows during the pre-visit:

- Team counterparts (LLNL and DOE/OAK) were established in each of the four functional areas and for each Subject Matter Expert (SME), as described by Section 7.0, who were knowledgeable in ISMS and their assigned functional area as applied at the LLNL site. Counterparts were responsible for reviewing the CRAD (Appendix 11.4) and meeting with team members during the pre-visit to coordinate the request for records, interviews and observations. Later, during the verification, counterparts will assist team members and organize LLNL responses to questions or issues raised during the verification.
- Team spaces are adequately established to conduct the verification. The team office spaces are sufficient to accommodate the Part I and Part II teams and are planned to be fully outfitted with the needed IBM compatible computer capabilities, conference meeting spaces, interview locations and phone, facsimile and copy capabilities by May 1, 2000.
- LLNL and DOE communicated their established ISM systems to the team as appropriate in order to demonstrate ISMS, consistent with the DEAR, DOE Policy, and HCA Guidance at the directorate, facility, and activity levels. Individual managers who made presentations for the team generally demonstrated an understanding of the expectations of the ISMS verification, the DOE interface with the LLNL ISMS, and the commitments and processes that are embedded in the Institutional ISMS Description. Presentations described the current and future planned mission activities for sampled directorates in Part I, and how the documents identified in the ISMS Description and the organizations responsible for implementing them accomplish work safely within the functions and principles of ISM.
- The Laboratory and DOE briefed the team on their ISMS implementation. Background presentations were given on the LLNL institutional organizations, their overall functions with respect to crosscutting support and line management's ISMS implementation, and representative ISMS implementation examples were provided by responsible management personnel at the facility and activity level. DOE-OAK managers briefed the team during the pre-visit on the organization, policies, procedures and processes that support the DOE roles and responsibilities for ISM and associated implementation.

At the conclusion of the pre-visit, several items still need to be accomplished as follows:

- The ISMS Verification Team identified specific management interviews, records to be reviewed and activities to observe during the two-week verification. LLNL and OAK



should schedule all interviews during the Tuesday morning through Friday morning timeframe of the first week of the verification. All interviews should indicate the name, title, and organization of the individual. Combining interviews with different sub-teams should be avoided and no more than two interviewers should be scheduled for any interview.

- Establish easy access to all documents requested for to the ISMS Verification. This might be accomplished by an electronic or physical repository of the documents in a location that is near-by or part of the team's space. In any case, organize the requested documents by sub-team. Some document requests, such as personnel records, are appropriately handled by retaining them in their normal storage locations for retrieval by team members with escort, as required.
- Finally, LLNL and OAK should provide a detailed and integrated schedule of all directorate, facility, and activity level ISM activities that occur during the verification and any others necessary to verify ISMS implementation. Team members will also request some of these during the pre-visit.
- Part II directorates will be identified by the team to LLNL on May 22, 2000, provided the Part II verification is on schedule. LLNL will then need to make appropriate directorate presentations available to the team by June 1, 2000 in order for the team to accomplish the Part II request for documents, interviews, and observations. Once the team requests are transmitted, action on those requests by LLNL will be necessary in order to support the verification start date, presently scheduled for June 19, 2000.

## 7.0 VERIFICATION PROCESS

As discussed in Volume 2, Appendix E of DOE G450.4-1, *ISMS Guide*, this verification is an assessment of the implementation of the ISMS Description and implementing mechanisms at the directorate, facility, and activity levels. To be successful, the Phase IB portion of the verification covers an administrative review of the ISMS documentation, and a review of the procedures, policies and manuals of practice used to implement safety management. The verification evaluates how these mechanisms (procedures, policies and manuals of practice) have been developed and instituted at the directorate, facility, and activity levels when compared to the ISM seven guiding principles. The implementation of the five core functions through the described ISM system from the directorate level through the activity level will be verified in the Phase IIB portion of the verification. Subject Matter experts will evaluate flowdown of requirements to the activity level and horizontal integration across activities. Both Phase IB and IIB are integrated within the CRAD (Appendix 11.4).

The primary goal for the review is to determine whether ISMS is in place and implemented at the directorate, facility, and activity level and provide a recommendation to the HCA concerning the adequacy of implementation and the feasibility of executing the Directorate Implementation Plans. To reach that conclusion, it is necessary to develop a

complete understanding of the safety management system, DOE requirements for ISMS, and the Laboratory's management, planning, and accomplishment of safe work. The verification will also evaluate DOE on-site organizations (Office of Environment and National Security—AMEN, and Office of the Livermore Site--AMLS) from the standpoint of ISMS implementation and interfaces with LLNL, DOE-OAK, and DOE-HQ.

The review will be conducted using the CRAD. Each CRAD is intended to guide the evaluation in determining the adequacy of the ISMS Description. Each CRAD objective includes a reference to the nine ISMS Phase I and/or eight ISMS Phase II Core Expectations (CE) as applicable as and as defined in the *ISMS Guide*, DOE G 450.4-1A. The referenced Core Expectations are included in parenthesis after the statement of the CRAD objective and are listed below:

#### PHASE I CORE EXPECTATIONS:

- The ISMS documentation is consistent with DOE P 450.4, the DEAR, and the guidance provided to the contractor by the HCA. (CE I-1)
- DOE and the contractor effectively translate mission into work, set expectations, provide for integration, and prioritize and allocate resources. (CE I-2)
- The ISMS includes methods for identifying, analyzing, and categorizing hazards. (CE I-3)
- The ISMS includes methods for establishing and maintaining an agreed-upon set of safety standards before work is performed. (CE I-4)
- Contractor policies, procedures, and documents are established and are adequate for the work or process to be performed safely. (CE I-5)
- The ISMS can be continuously improved through an assessment and feedback process, which should be established at each level of work and at every stage in the work process. (CE I-6)
- The ISMS establishes that at every level of control, line management must be responsible for safety. Clear and unambiguous roles and responsibilities should be defined and maintained at all levels within the organization. (CE I-7)
- The ISMS ensures that personnel are competent commensurate with their responsibility for safety. (CE I-8)
- The DOE HCA has a set of processes that interface efficiently and effectively with the contractor organization. (CE I-9)

## PHASE II CORE EXPECTATIONS:

- An integrated process has been established and is utilized to identify and prioritize specific mission discrete tasks, mission process operations, modifications and work items. (CE II-1)
- The full spectrum of hazards associated with the Scope of Work is identified, analyzed, and categorized. Those individuals responsible for the analysis of the environmental, health and safety, and worker protection hazards are integrated with those personnel assigned to analyze the processes. (CE II-2)
- An integrated process has been established and is utilized to develop controls that mitigate the identified hazards present within a facility or activity. The set of controls ensure adequate protection of the public, worker, and the environment and are established as agreed upon by DOE. These mechanisms provide integration, which merge together at the workplace. (CE II-3)
- An integrated process has been established and is utilized to effectively plan, authorize and execute the identified work for the facility or activity. Both workers and management demonstrate a commitment to ISMS. These mechanisms demonstrate effective integration. (CE II-4)
- A process has been established and is utilized which ensures that mechanisms are in place to ensure continuous improvements are implemented through an assessment and feedback process, which functions at each level of work and at every stage in the work process. (CE II-5)
- Clear and unambiguous roles and responsibilities are defined and maintained at all levels within the facility or activity. Facility or activity line managers are responsible and accountable for safety. Facility or activity personnel are competent commensurate with their responsibility for safety. (CE II-6)
- DOE ISMS procedures and mechanisms should ensure that work is formally and appropriately authorized and performed safely. DOE line managers should be involved in the review of safety issues and concerns and should have an active role in authorizing and approving work and operations. (CE II-7)
- DOE ISMS procedures and mechanisms ensure that hazards are analyzed, controls are developed, and feedback and improvement programs are in place and effective. DOE line managers are using these processes effectively, consistent with FRAM and FRA requirements. (CE II-8)

The Criteria and Review Approach Document for this verification is organized into four functional areas that correspond to the four verification sub-teams. Subject Matter Experts (SME) will not only support evaluation of the Directorate Implementation Plans

for the sub-teams but also address adequacy of the ES&H manual for flowdown of requirements. The four sub-teams for the Phase IB/IIB verification are as follows:

- Department of Energy (DOE)
- Hazards Identification and Standards Selection (HAZ)
- Management Oversight (MGO)
- Operations/SME (OP)

The DOE sub-team is tasked to review the DOE procedures and processes that interface efficiently and effectively with LLNL to ensure work is performed safely and the system provides feedback and continuous improvement. Also, tasking includes validating that implementation plan requirements for DNFSB Recommendation 98-1 have been effectively addressed by DOE-OAK through a process for addressing and resolving safety issues identified by EH-2. This sub-team will complete their work during Part I.

The HAZ sub-team is tasked to review the system (DOE and LLNL) that ensures the full spectrum of hazards associated with facility and activity level work are identified, analyzed, categorized and appropriate controls are implemented. In addition, this sub-team will determine whether the processes (DOE and LLNL) ensure that the personnel responsible for identifying and analyzing hazards and identifying, implementing and improving controls have competence commensurate with responsibilities.

The MGO sub-team is tasked to confirm that an integrated process has been established and is utilized to identify and prioritize specific mission discrete tasks, mission process operations, modifications and work items; and provides for effective feedback and improvement. Also, the sub-team will ensure that this process delineates roles and responsibilities, accountability for safety, and competence commensurate with those responsibilities.

The OP sub-team is tasked to look at specific crosscutting areas that will verify the core functions and guiding principles of ISMS are in place through processes, procedures and competent personnel. The sub-team will verify implementation of these directorate and facility mechanisms primarily at the activity level. This includes the identification of hazards, selection of appropriate standards, implementation of tailored controls, authorization and execution of work with specified disciplines and the appropriate involvement of line management.

The record of the evaluation of each CRAD will be the Assessment Form. As such, the discussion of results on the Assessment Form will include the adequacy of the described ISM system. An Assessment Form will be prepared for each Objective/CRAD and will document the basis for the conclusions reached concerning the objective and criteria. Each Assessment Form will conclude with the numbered issues (concerns and strengths) which will be rolled up to "Opportunities for Improvement" and "Noteworthy Practices." Reports from the sub-teams will be written to the seven guiding principles. Detailed

instructions for completing the Assessment Form and sub-team summaries have been provided to the ISMS Verification team and will be implemented during the review.

## 8.0 ADMINISTRATION

### 8.1 Meetings and Presentations

The team pre-visit included presentations by LLNL and OAK. The purpose of the presentations was to provide information on LLNL's organization, their overall functions with respect to crosscutting support and line management's ISMS implementation, and representative examples of ISMS implementation by the responsible management personnel. Also, DOE-OAK managers briefed the team during the pre-visit on the organization, policies, procedures and processes that support the DOE's roles and responsibilities for ISM and associated implementation. This was an opportunity for the team to become more familiar with the ISMS Description, roles and responsibilities, integrating mechanisms and implementation of the System Description from the directorate through the activity levels. The ISMS Verification Team will utilize the information provided during the presentations as a basis for conducting the field portions of the verification. Additional interviews, record reviews and field observations will clarify and validate the information provided in the briefings and determine field implementation against the described ISMS.

The ISMS verification will be an open process, the goal of which is for the team to achieve a full understanding of the Institutional ISMS and the breadth and depth of implementation. In order to achieve the level of openness and coordination which is desired, the team will meet daily to discuss observations, strengths, and concerns. For the sake of time, site personnel will be invited, in limited numbers to attend these meetings as observers. Team members will meet routinely with site counterparts and others as needed to clarify issues, gather information and share conclusions. The Team Leader and Senior Advisor may meet as needed with senior LLNL and OAK management to ensure that everyone is fully informed of the progress and issues during the ISMS verification.

### 8.2 Documentation of the ISMS Verification

As indicated above, the ISMS verification will be guided by the CRAD. The documentation will be structured in a manner to show that the elements of the CRAD were evaluated and that the criteria were met or what aspects of the criteria were found to be deficient. The purpose of the documentation is to provide information concerning details of the review to individuals who did not witness or participate in the review.

To maintain the schedule for the ISMS verification and produce a final report prior to the dissolution of the team, each team member must document his/her work as it is conducted. This means daily inputs to the Assessment Form. Each sub-team leader will be provided with a preliminary Assessment Form containing the objectives and criteria for each CRAD. In the event that noteworthy practices or opportunities for improvement are identified,

these items will be documented within the Assessment Form. If the final report to the HCA recommends technical direction to LLNL and/or OAK, those actions will be supported by objective evidence on the Assessment Form to reasonably support the conclusions. The team members, aided by on-site classifiers, are responsible for ensuring that the Assessment Form does not contain either classified information of Unclassified Controlled Nuclear Information (UCNI).

Each sub-team will submit completed ISMS Verification Assessment Forms, and a sub-team Functional Area Summary to an ISMS Verification Team peer review. The sub-team Functional Area Summaries will be written to the seven guiding principles and five core functions. The Team Leader and the Senior Advisor will either participate in these reviews with the assistance of sub-team leaders or complete an additional review. Once the peer review is complete, the ISMS verification Assessment Forms will be provided to OAK and the Laboratory for a factual accuracy review. This review will allow DOE and the Laboratory a limited timeframe for confirmation of the factual basis presented. All DOE and Laboratory comments that cannot be resolved acceptably to both parties satisfaction will be provided to the Team Leader for consideration and resolution.

The lessons learned from the Institutional ISMS verification are particularly important for future reviews. Team members will draft lessons learned input and provide those inputs to the Team Leader or an individual designated. Those inputs will be used for a composite lessons learned for future use and will also be included in the final report.

### 8.3 Team Composition and Organization

The ISMS Verification Team will be organized into four review sub-teams. Each sub-team leader, denoted by STL next to their name, will be responsible for ensuring that all assigned CRADs are fully evaluated and that documentation is prepared to address all criteria and support any recommendations regarding establishment and implementation of ISMS. The biographies documenting the education and experience for each team member are included in Appendix 11.3 and will be retained with the records of the ISMS verification. The team composition is as follows:

#### Verification Part I:

Team Leader	Jim Winter, DP-45
Senior Advisor	Doug Outlaw, SAIC
ISMS Coordinator	Jo Kersh, XL Associates Cyndi Brandt, LLNL
Technical Editor	Robin Phillips, SAIC
DOE	STL John Martin (DOE-ID) Gerry Gears (DP-45) Dave Grosek (DOE-RF)

HAZ	STL	Dave Odland (SRA)
		Ted Doerr (LANL)
Configuration Management	SME	Warren Hall (DP-132)
MGO	STL	Ralph Kopenhaver (DOE-OAK)
		Tim Henderson (DOE-OAK)
		Lee McLemore (DOE-OAK)
Operations/SME		
Maintenance and Work Planning	STL	Danny Yee (DOE-OAK)
Operations and Work Control	SME	Steve Smith (DOE-OAK)
Industrial Hygiene	SME	Jim Slawski (DP-45)
Security	SME	Joe Cohen (DOE-SR)

#### Verification Part II:

Team Leader		Jim Winter, DP-45
Senior Advisor		Ralph Kopenhaver (DOE-
OAK)		
ISMS Coordinator		To be determined
Technical Editor		Robin Phillips, SAIC
HAZ	STL	Doug Outlaw (SAIC)
		Rick Kendall (DP-45)
		Dick Englehart (EH-31)
MGO	STL	Dave Odland (SRA)
		Warren Hall (DP-132)
		Lee McLemore (DOE-OAK)
Operations/SMEs		
Operations	STL	Tim Henderson (DOE-OAK)
Operations	SME	Steve Smith (DOE-OAK)
Maintenance and Work Planning	SME	To be determined
Chemical Safety or Environmental	SME	To be determined
Explosive Safety	SME	Julian Biggers (DOE-AL)
Project Management	SME	Kim Sidey (DOE-SR)

## 9.0 REPORTING AND RESOLUTIONS

At the completion of the review, the team will prepare a final report. The report will include a recommendation to the HCA regarding establishment and implementation of ISMS and will delineate areas, if any, in which implementation does not conform to the Institutional System Description, the DEAR, DOE Policy, or the HCA guidance. The final report of the LLNL Institutional ISMS Phase IB/IIB verification will be submitted, with specific recommendations, to the HCA, the Assistant Manager for the Livermore Site (AMLS), the Assistant Manager for the Environment and National Security (AMEN), and the LLNL Assurance Review Office.

Team members should not include any classified or UCNI (Unclassified Controlled Nuclear Information) material in the report. The Team Leader will ensure that the final report is appropriately controlled and reviewed for classified information of UCNI prior to issuance.

The report of the ISMS verification will consist of the following sections that fully describe the review, provide the necessary recommendations, and provide information necessary to support the recommendations.

**TITLE PAGE** – states the site and the date(s) of the review;

**SIGNATURE PAGE** – this page is used by the Team Leader to promulgate the final version of the report. Sub-team leaders may sign on behalf of individual team members if unavailable.

**TABLE OF CONTENTS** – identified all sections and subsections of the report, illustrations, tables, charts, figure and appendices.

**EXECUTIVE SUMMARY** – provides the scope of review, an overview of the results of the ISMS verification, and a summary of the recommendations. The executive summary will identify “Opportunities for Improvement” as well as “Noteworthy Practices”. The Executive Summary for the Part II final report will represent an integrated summary, taking into account the Part I results.

**INTRODUCTION** – includes the overall objectives of the evaluation, the review process and methodologies used in the review, and the team composition.

**PURPOSE** – includes the purpose of the ISMS verification.

**OVERALL APPROACH** – restates (with any necessary modifications) the approach followed during the ISMS verification and delineated by the review plan.

**ISMS EVALUATION** – provides a summary discussion of the overall results of the evaluation for LLNL and DOE. This summary will be organized to address each ISMS guiding principle and related Noteworthy Practices and Opportunities for Improvement. In addition, this section will provide details of the review that are necessary to support



each recommendation to the HCA concerning actions associated with the approval of the established and implemented ISMS at and below the Directorate level. This section will also provide support for any recommendations or observations associated with DOE. The report will also discuss the observations and conclusions of the team regarding the status of implementation of ISMS in accordance with the mechanisms specified in the System Description. The ISMS Evaluation for the Part II final report will represent an integrated evaluation, taking into account the Part I results. Finally, any deviations from the review plan will be discussed in the report.

**CONCLUSIONS AND RECOMMENDATIONS** – will address the adequacy of the LLNL ISMS and its implementation at and below the directorate level. The recommendations within the Part I final report will address additional LLNL pre-requisites for Part II, if any. The conclusions and recommendations from the Part I final report will be integrated into the Part II final report. Additionally, the conclusion will include the effectiveness of DOE implementation in the ISM process.

**LESSONS LEARNED** – will discuss lessons learned associated with the ISMS verification process as well as with the development and implementation of an ISMS. Prior lessons learned from Superblock Phase I/II and the Sitewide Phase IA/IIA verifications will be appropriately integrated.

**APPENDIX OF FUNCTIONAL AREA SUMMARIES:** Each sub-team (DOE, HAZ, MGO, OP) will provide a detailed summary by ISM core functions and guiding principles with resulting strengths and weaknesses identified.

**VOLUME II** – will include the completed ISMS verification Assessment Forms, and several appendices, including the Review Plan and other pertinent material.

## 10.0 SCHEDULE

The projected schedule for the Institutional ISMS Phase IB/IIB verification is as follows:

April 17-20, 2000: Pre-visit for team training (Part I and Part II) and management presentations.

May 1-12, 2000: Perform the record reviews, interviews, observations, conduct the evaluation, report writing and closeout briefing for Part I of the verification.

June 19-30, 2000: Perform the record reviews, interviews, observations, conduct the evaluation, report writing and closeout briefing for Part II of the verification.